ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089
http://www.nteinc.com

NTE2642
Silicon NPN Transistor
Horizontal Deflection Output
High Speed Switch

Features:
- High Breakdown Voltage
- High Reliability
- High Speed Switching
- Wide Area of Safe Operation (ASO)

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Collector–Base Voltage, V_{CBO} 1700V
Collector–Emitter Voltage, V_{CES} 1700V
Collector–Emitter Voltage, V_{CEO} 600V
Emitter–Base Voltage, V_{EBO} 7V
Collector Current, I_C
- Continuous DC 16A
- Pulse 30A

Base Current, I_B 8A
Collector Power Dissipation, P_C
- T_C = +25°C 65W
- T_A = +25°C 3.5W

Operating Junction Temperature, T_J . . . . . +150°C
Storage Temperature Range, T_{stg} . . . . . –55° to +150°C

Electrical Characteristics: (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	V_{CB} = 1000V, I_E = 0	–	–	50	μA
		V_{CB} = 1700V, I_E = 0	–	–	1	mA
Emitter Cutoff Current	I_{EBO}	V_{EB} = 7V, I_C = 0	–	–	50	μA
DC Current Gain	h_{FE}	V_{CE} = 5V, I_C = 8A	6	–	12	
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 8A, I_B = 2A	–	–	3	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = 8A, I_B = 2A	–	–	1.5	V
Transition Frequency	f_T	V_{CE} = 10V, I_C = 0.1A, f = 0.5MHz	–	3	–	MHz

Electrical Characteristics (Cont'd): (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Switching Time						
Storage Time	t_{stg}	I_C = 8A, Resistance loaded, I_{B1} = 2A, I_{B2} = –4A	–	–	3.0	µs
Fall Time	t_f		–	–	0.2	µs